Claims

1. An optical device comprising:
- means (206, 208) for focussing a first radiation beam (203) having a first numerical aperture and a second radiation beam (204) having a second numerical aperture different from the first numerical aperture, on an information carrier (200);
- means (211) for detecting a first focus error signal corresponding to the first radiation beam and a second focus error signal corresponding to the second radiation beam;
- means (212) for measuring a spherical aberration of the first radiation beam from the first and second focus error signals.

2. An optical device as claimed in claim 1, wherein the first and second radiation beams are produced by two radiation sources (201, 202), the device further comprising means for switching on and off the radiation beams, the first and second focus error signals being detected by a same detector.

3. An optical device as claimed in claim 2, further comprising means for pulsing the second radiation beam and means for detecting a pulsed focus error signal corresponding to said pulsed second radiation beam.

4. An optical device as claimed in claim 1, wherein the first and second radiation beams are produced by a same radiation source, the optical device further comprising means (300) for reducing the numerical aperture of the first radiation beam in order to obtain the second radiation beam, and means for switching on and off said reducing means.

5. An optical device as claimed in claim 4, wherein a liquid crystal cell is placed between the radiation source and the focussing means in order to reduce the numerical aperture of the first radiation beam.

6. A method for detecting a spherical aberration, said method comprising the steps of:
- detecting a first focus error signal corresponding to a first radiation beam having a first numerical aperture;

- detecting a second focus error signal corresponding to a second radiation beam having a second numerical aperture different from the first numerical aperture;
- measuring a spherical aberration of the first radiation beam from the first and second focus error signals.

7. A method as claimed in claim 6, the step of measuring a spherical aberration of the first radiation beam from the first and second focus error signals being performed by:
- calculating the difference between the first focus error signal and the second focus error signal,
- subtracting a predefined focus error signal from said difference, said predefined focus error signal corresponding to a focus error signal obtained with the second radiation beam focussed on an information carrier having a predetermined thickness.

8. A method as claimed in claim 6, wherein the step of detecting the first focus error signal and the step of detecting the second focus error signal are separated in time.